

REMARKS/ARGUMENTS

Applicant respectfully acknowledges receipt of the Office Action mailed January 6, 2006. In that Office Action, the Examiner (i) rejected claims 1-7, 10-11 and 13-18 under 35 U.S.C. § 102(b) as being anticipated by US 5,096,975 Anderson et al.; (ii) rejected claims 8, 9 and 12 under 35 U.S.C. § 103(a) as unpatentable over Anderson et al. in view of US 3,833,457 Misumi et al. and US 3,677,979 Beaulieu; and (iii) rejected claims 1-18 under 35 U.S.C. § 103(a) as unpatentable over US 20020161088A1 Kochvar et al. in view of Misumi et al. and Anderson et al. and Joseph et al. For the reasons which follow, Applicant respectfully requests reconsideration and allowance of all claims.

I. Claim Rejections - 35 U.S.C. § 102(b)

The Examiner contends that Anderson et al. anticipates the subject matter claimed in claims 1-7, 10-11 and 13-18. Applicant respectfully traverses this rejection. Anderson et al. teaches coating compositions that are applied to make a coating on a substrate. Specifically, the coatings are coatings of cross-linked polymers that are employed as antistat layers on light-sensitive recording elements such as photographic films (column 2, lines 5-19). The *ingredients* of the compositions used to prepare the coatings may be water-soluble, e.g. a water-soluble electrically conductive addition polymer (column 2, lines 1-3), and in the preparation of such conductive addition polymers, salts of a vinyl benzene sulfonic acid may be used. However, in the coatings themselves that are formed from these compositions, the conductive addition polymer is *cross-linked* by reaction with a multi-functional methoxyalkylmelamine (column 2, lines 30-31). The ingredients of the coating composition, namely the conductive polymer, the cross-linking agent, and the binder polymer (which may be polyvinyl alcohol) are dissolved or suspended in an aqueous medium (column 3, lines 61-66). The composition is then applied to the substrate, i.e. the light-sensitive element (column 4, lines 3-10). Then, the composition is dried and cured by the application of heat, *to transform the aqueous coating composition into a permanent antistat layer which is a highly abrasion resistant, water resistant transparent layer* (column 4, lines 38-47). This coating serves as both an antistat layer and a *protective overcoat* (column 4, lines 47-53).

It should further be noted that in Example 3, Anderson et al. describes a wet adhesion test of the antistat layer. The test includes placing the sample in developer and fixer and then rinsing in distilled water (column 5, lines 39-45). It is apparent that the coating is intended to resist water, as would be expected from its function as a protective coating for a light-sensitive element that is going to be processed with a developer. A fortiori, the coating is not water-soluble.

Accordingly, Anderson et al. does not disclose *water-soluble films*, as specified in Applicant's independent claim 1, nor compositions for forming water-soluble films, as specified in independent claim 17. The Applicant is claiming water-soluble *films*, not water-soluble *ingredients* for making films. These independent claims are therefore not anticipated by Anderson et al.

The remaining claims that are rejected as anticipated by Anderson et al. are all dependent claims which depend directly or indirectly from claim 1 or 17. For at least this reason, these claims cannot be anticipated by Anderson et al.

II. Claim Rejections - 35 U.S.C. § 103(a)

(a) Rejection of Claims 8, 9 and 12

The Examiner contends that claims 8, 9 and 12 are unpatentable over Anderson et al. in view of Misumi et al. and Beaulieu. These three claims all depend indirectly from claim 1 and accordingly require a "water-soluble film" comprising the specified blend of polyvinyl alcohol and a sulfonate polymer. As explained above, Anderson et al. does not disclose any water-soluble film. These dependent claims are therefore not obvious in view of these references.

(b) Rejection of Claims 1-18

The Examiner rejects claims 1-18 as unpatentable over Kochvar et al. in view of Misumi et al., Anderson et al. and Joseph et al. Applicant respectfully traverses this rejection. As noted by the Examiner, Kochvar et al. does not teach blends which include a sulfonate polymer. Anderson et al. does teach compositions which include sulfonate polymers and which are used to make coatings, but, as explained above, such coatings are specifically taught to be water resistant, not water-soluble. Therefore a person skilled in the art, seeking to make water-soluble coatings, would not be led to use the sulfonate polymers of Anderson et al. In fact, in teaching the production of water-resistant protective coatings, Anderson et al. is teaching away from the claimed invention.

Misumi et al. also teaches the use of sulfonate polymers for coating compositions, as noted by the Examiner. However, Misumi et al. specifically teaches that the coatings made from the compositions are insoluble, i.e. "an insoluble and infusible coating of a cross-linked polymer containing free sulfonic acid groups and/or salts thereof" (column 1, lines 7-9). The coatings of Misumi et al. have the property of *water absorption*, but not the property of being *water-soluble*, as claimed by Applicant. As stated in Misumi et al.:

The coatings formed on the surface of substrates in the polymeric complex composite of the present invention are combined strongly with the polymeric substrates and have a three-dimensional insoluble and infusible chemical structure. Accordingly, the coatings have extremely excellent thermal, chemical and mechanical stabilities. In other words, the coatings of the polymeric complex composite of the present invention are extremely excellent in thermal resistance, solvent resistance, friction resistance, washing resistance, ironing resistance or the like. The aforesaid improved properties do not substantially change even after repeated use, cleaning in water or organic solvents (for example, ordinary washing, dry cleaning) or the like. For instance, the surface resistivity of the polymeric complex composite of the present invention is 10^{11} ohm or less even after 10 times repeated washing which is substantially the same as before washing.

(Column 2, lines 38-56)

The water-insolubility of the coatings taught by Misumi et al. is apparent from Example 1. The coated film is immersed in an aqueous sodium carbonate solution and washed with cold water. It is also treated with hot water (column 7, lines 53-65). It is evident that the film does not dissolve.

In view of these considerations, a skilled person, seeking to make water-soluble coatings, would not be led to use the sulfonate polymers of Misumi et al., which are taught to produce insoluble coatings. Again, Misumi et al. is teaching away from the claimed invention.

The Examiner further cites US 4,196,001 Joseph et al. as showing that a sulfonate polymer such as polystyrene sulfonic acid is well known as a film-forming water-soluble polymer. However, the coatings taught by Joseph et al., which are applied to photographic film, are *not* water-soluble. Rather, the coating, which is an antistatic layer, is "durable, abrasion resistant, non-tacky and *highly resistant to the aqueous processing baths* employed in photographic processing." (Abstract, lines 13-16). Again, the teachings of Joseph et al. would not be used by someone seeking to make water-soluble films.

Accordingly, a combination of Kochvar et al. and Anderson et al., Misumi et al. or Joseph et al. does not disclose the features claimed in independent claims 1 and 17, i.e. a water-soluble film or a composition for forming a water-soluble film. The remaining claims all depend directly or indirectly from these independent claims and thus are allowable for at least that reason. Applicant respectfully requests withdrawal of the rejections under Section 103(a).

III. Amendment of the Specification

Applicant has amended paragraph [0023] of the specification to correct a minor typographical error.

V. Priority Claim

Applicant notes that the Office Action Summary does not include acknowledgment of the claim for foreign priority under 35 U.S.C. § 119. The application claims priority from Chinese application Serial No. 03 1 09627.1, filed April 9, 2003. A certified copy of that application, together with a certified translation into English, were filed on March 10, 2004. Applicant requests acknowledgment by the Examiner of the claim for foreign priority and confirmation of receipt of the certified copy of the priority document.

V. Conclusion

Applicant respectfully requests reconsideration and allowance of all pending claims. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to phone the undersigned.

Respectfully submitted,

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